



What's Happening

October 2019

Adoption of, enrollment in, and teacher workload for the Expository Reading and Writing Curriculum in California high schools

Min Chen-Gaddini
Anthony Fong
Niufeng Zhu
Anne Porterfield
WestEd

Key findings

- Slightly more than half of California high schools had adopted the Expository Reading and Writing Curriculum (ERWC) as of 2016/17. The adoption rate was lower in rural schools than in city, suburban, and town schools. The larger the schoolwide enrollment, the more likely a school was to adopt the course.
- Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, a higher percentage of Hispanic students and a lower percentage of White students were in the ERWC than in the other English courses.
- Among these same schools, class sizes were larger, on average, for ERWC classes than for other grade 12 mainstream college preparatory English classes.

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Summary

To help high school students avoid having to take remedial courses in college, an increasing number of states are offering transition courses in math and English during high school. Transition courses are typically regular, full-year courses that are offered in grade 12 to students who are at risk of being placed in remedial courses in college (Barnett, Fay, Trimble, & Pheatt, 2013; Community College Research Center, 2016).

The Expository Reading and Writing Curriculum (ERWC), one example of a transition course, is a college preparatory English course designed to improve reading and writing skills through rhetorical analysis of compelling issues and interesting texts. An earlier evaluation found that students who took the ERWC in grade 12 scored higher than students in a matched comparison group on the English Placement Test, a standardized test given to students entering the California State University (CSU) system who have not demonstrated English proficiency by other measures (Fong, Finkelstein, Jaeger, Diaz, & Broek, 2015).

The CSU system and K-12 partners are updating and refining the ERWC and seeking to make the course more widely available across the state. To inform those efforts, the Regional Educational Laboratory West explored the characteristics of schools that have adopted the ERWC (that is, schools that have been approved to offer it), the characteristics of students taking the course, and teacher workloads for the course. This analysis can help inform efforts to update the course curriculum and to bring the course to more schools. To better understand which students are being reached by the ERWC, this study compared the characteristics of students in the course to those of students in other grade 12 mainstream college preparatory English courses. In addition, because previous research indicates that teachers with heavy ERWC workloads found it challenging to guide in-class writing and to grade all their students' writing homework for the course (Fong et al., 2015), this study also examined teacher workload using data on the total number of students each teacher was assigned to teach and on the number of classes and the number of students in each class.

The study found the following:

- Slightly more than half of California high schools had adopted the ERWC as of 2016/17. Among California schools with grade 12 students, 53 percent (832 schools) had adopted the ERWC.
- The adoption rate was lower in rural schools than in city, suburban, and town schools. More than 60 percent of suburban schools adopted the ERWC compared with less than 40 percent of rural schools.
- The adoption rate increased as schoolwide enrollment increased. About 11 percent of California high schools with fewer than 200 students had adopted the ERWC compared with 42 percent of schools with 400–599 students.
- Compared with schools that had not adopted the ERWC, schools that had adopted the course tended to be higher achieving, to serve higher percentages of Hispanic students, and to serve higher percentages of low-income students.

Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, the study found the following:

- A higher percentage of Hispanic students and a lower percentage of White students were in the ERWC than in the other English courses. The racial/ethnic composition of students was otherwise similar.
- ERWC teachers and teachers of the other English courses taught similar numbers of classes. Almost 90 percent of teachers in each group taught five or more classes.
- ERWC teachers had more students, on average, than teachers of the other English courses. On average, ERWC teachers had 157 students, and teachers of the other English courses had 150 students.
- Class sizes were larger for ERWC classes than for the other English courses. The mean ERWC class size was 30.9 students, and the median was 32. Each of the three other most common English courses had a mean class size no larger than 25.2 students and a median of 30 or lower.

The findings from this study may inform the work of the organizations involved in developing and implementing the ERWC as they seek to improve the course's reach and effectiveness in California. For instance, given the lower course adoption rate in rural and smaller schools, the ERWC Steering Committee, which oversees the overall direction of the course, might pursue further studies to understand what barriers keep these schools from adopting the course and what supports could help overcome them. The agencies responsible for disseminating the ERWC might consider directing more of their outreach to rural and smaller schools to better inform them about the course. In addition, the ERWC Steering Committee might want to revise the professional learning it provides for teachers before and while they teach the course to give ERWC teachers strategies for handling their larger workloads (total student enrollment per teacher and average class size). And to reduce average workload, schools adopting the ERWC might consider recruiting and preparing additional teachers to teach the ERWC.

This study provides examples of the types of metrics that course developers and entities supporting course adoption could use to inform the continuous improvement of other courses. Across the country, districts and schools are often faced with resource constraints that impact class sizes and teacher workloads. Given such constraints, analyzing class size and teacher workloads of a given course is an important step toward maximizing resources that can ultimately help improve student achievement.

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Why this study?

The Expository Reading and Writing Curriculum¹ (ERWC) is one response by California's educators and policymakers to concerns about the large proportions of first-year California college students needing remedial coursework. Students who are placed into remedial courses are much less likely to graduate than students who are immediately placed into college-level courses (Bailey, Jeong, & Cho, 2009; Sanabria, Penner, & Domina, 2016). Nationally, 68 percent of students entering community colleges and 40 percent of students entering four-year colleges are assigned to remedial coursework upon enrollment (National Center for Education Statistics, 2013). Among students entering a California community college in 2011/12, 49 percent were assigned to remedial coursework (California Community Colleges Board of Governors, 2018). At the California State University (CSU) system in fall 2016, the remediation rate in English for newly entering freshmen was 23 percent (California State University, 2016).

To help students avoid having to take remedial courses in college, an increasing number of states are offering transition courses in math and English during high school. Transition courses are typically regular, full-year courses offered in grade 12 to students who are at risk of being placed in remedial courses in college (Barnett et al., 2013; Community College Research Center, 2016).

The ERWC is one such English transition course. Created in 2004 by a task force of CSU faculty members, high school teachers, and K–12 administrators, the ERWC is a rigorous, rhetoric-based,² full-year English course for grade 12 students designed to support college readiness in English.³ The course covers a variety of expository and informational text, emphasizing the in-depth study of expository, analytical, and argumentative reading and writing. In contrast, traditional grade 12 English courses tend to be more literature-based. In the ERWC, students are expected to read closely to examine the relationship between an author's argument or theme and the text's audience and purpose; to analyze the impact of structural and rhetorical strategies; and to examine the social, political, and philosophical assumptions that underlie the text. By the end of the course, students are expected to use this process independently when reading unfamiliar texts and when writing in response to texts (California State University, 2013a).

Several features of the ERWC make it a promising model for transition courses nationwide that seek to reduce remediation and improve college readiness. First, the ERWC is one of the few transition courses with evidence of a positive impact on student outcomes (Barnett, Fay, & Pheatt, 2016; Pheatt, Trimble, & Barnett, 2016). An evaluation of the ERWC found that students who took it in grade 12 scored higher than students in a matched comparison group on the English Placement Test, a standardized test given to students entering the CSU system who have not demonstrated English proficiency by other measures (Fong et al., 2015).⁴

Second, use of the ERWC has been spreading throughout California in recent years, showing that the course is scalable in a large state. The course was piloted in the 2004/05 school year with approximately 660 high school English teachers (California State University, 2005). The pilot continued through 2007, and the course was revised in response to feedback. The revised course was published in 2008 for use by schools throughout California. A second version of the course was released for the 2013/14 school year and has been

widely offered to grade 12 students. In 2015 more than 750 California high schools were estimated to have adopted the ERWC as a full-year grade 12 English course (Fong et al., 2015). (See appendix A for more information about the process through which schools adopt the course.) In addition, components of the ERWC are being used in English courses in Hawaii and Washington.

Third, the ERWC helps prepare grade 12 students in California for college, playing an important role in the CSU's new policy of assessing academic preparation using multiple measures and eliminating remedial courses. As of fall 2018, the CSU system had stopped offering remedial courses during the school year. Instead, incoming CSU freshmen who have not demonstrated proficiency in math or English based on multiple measures of academic proficiency⁵ may be placed in a summer program called Early Start or may be required to enroll in support courses (White, 2017). The ERWC has become an important option for preparing students to succeed in college and to avoid needing to take Early Start or support courses upon enrolling in the CSU system (Forbes, 2017). (Appendix B provides more information on the role of the ERWC in the CSU's new policy of assessing academic preparation using multiple measures and eliminating remedial courses.) As developers of other transition courses also seek to reduce remediation rates and improve college readiness for high school graduates, they may benefit from understanding how the ERWC is being implemented in California high schools.

The organizations supporting ERWC implementation (see appendix A), led by the ERWC Steering Committee, are working to improve the reach and effectiveness of the course. The Regional Educational Laboratory (REL) West has partnered with the ERWC Steering Committee to support improvement of the course's content and delivery and to inform the expansion of access to the course. As part of these efforts, REL West designed this study to explore the characteristics of schools that have adopted the ERWC, the characteristics of students taking the course, and teacher workloads for the course (see box 1 for definitions of key terms). In addition, the study is intended to reach a wider audience of policymakers and educators, within and beyond California, who are interested in strengthening postsecondary readiness by providing opportunities for high school students to take courses like the ERWC.

Box 1. Key terms

ERWC teachers. Teachers who taught at least one class of the Expository Reading and Writing Curriculum (ERWC) in California in 2016/17.

Grade 12 mainstream college preparatory English course. A non–Advanced Placement, non–International Baccalaureate, and non–English language development English course for which grade 12 students constitute at least half the enrollment. Such courses include the ERWC and courses in comprehensive English, American literature, British literature, world literature, and English 12.

High school. A school that serves at least one student in grade 12 in California. Such schools include comprehensive high schools, charter schools, and other K–12 schools. This definition was used because the ERWC is a grade 12 course. The study did not include any schools serving some combination of grades 9, 10, and 11 but not grade 12. In addition, the study excluded private schools and alternative schools (such as adult schools, court schools, online schools, and continuation schools).

Adoption of the Expository Reading and Writing Curriculum

Before a California high school can offer the ERWC, it needs to adopt the course by submitting a two-page application to the Center for the Advancement of Reading and Writing (CAR/W) at the CSU Chancellor's Office. Schools that adopt the course are not necessarily teaching it. Adoption just gives the school the option to teach the course.

To promote wide-scale adoption of the ERWC, the organizations developing and implementing the course would benefit from a clear understanding of how many California high schools and which types of schools have adopted the course. Although adoption rates have previously been estimated, this study using 2016/17 data is the first to determine the exact percentage of California high schools that had adopted the ERWC.⁶

Furthermore, little is known about what characteristics distinguish schools that have adopted the course from those that have not. Therefore, this study examined the characteristics—such as rural/urban locale, enrollment size, and average student achievement—of schools that have adopted the course and of schools that have not adopted it. Developing a better understanding of these patterns may help identify factors associated with whether a school adopts the ERWC. This in turn could inform how to use resources strategically to increase the course's reach.

Enrollment in the Expository Reading and Writing Curriculum

So that all students can choose among courses that match their abilities and interests and to prepare them for postsecondary options, the CSU has recommended that every high school offer at least one other grade 12 mainstream college preparatory English course along with the ERWC. Other offerings could include American Literature, British Literature, World Literature, and Composition (California State University, 2013b). However, anecdotal feedback suggests that for students in many schools across the state, the ERWC and Advanced Placement (AP) English are the sole options for grade 12 English.⁷ This study sought to check the accuracy of this feedback in order to help stakeholders decide how much work may still be needed to communicate to schools that students should be offered at least one other grade 12 mainstream college preparatory English course besides the ERWC.

Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, little is known about what characteristics distinguish the two groups of students.⁸ To better understand the relationship between these characteristics and ERWC enrollment, this study examined student demographic characteristics, including race/ethnicity and English learner status, which were the only publicly available student characteristics that were aggregated to the classroom level in the California Department of Education (CDE) dataset (see box 2 on data and methods later in the report). These results may be useful to the ERWC Steering Committee, which has been refining the content of the course, and to the delivery and outreach agencies of the ERWC, which seek to reach students who may not otherwise enroll in the course. The prevalence of racial/ethnic minority or English learner students in the course, for example, may affect how the committee designs ERWC professional learning for teachers.

Teacher workload for the Expository Reading and Writing Curriculum

Teacher workload—as measured by class sizes,⁹ total number of classes taught, and total number of students per teacher—could affect how the ERWC is being implemented. For instance, in a previous evaluation of the ERWC, teachers with heavy ERWC workloads found it challenging to guide in-class writing and to grade all of their students' writing homework. Also, members of the ERWC Steering Committee have heard anecdotally that ERWC class sizes can be large (for instance, 40 students or more per class) and that some teachers are assigned too many classes of the course (for example, four ERWC classes per teacher) to be able to grade students' work effectively. The current study is intended to provide more accurate data on ERWC teacher workloads. These findings could inform changes to ERWC professional learning to better provide teachers with strategies to address high workloads and could support schools' efforts to reduce workloads by hiring and preparing more teachers to teach the ERWC.

What the study examined

To generate evidence on ERWC adoption, enrollment, and teacher workload, the study used data from the CAR/W at the CSU Chancellor's Office as well as publicly available data from the CDE. The analyses of ERWC adoption and enrollment included schools in California that served at least one student in grade 12 in the 2016/17 school year. The analyses of student characteristics and teacher workload were restricted to schools that reported to the CDE that they had students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course. (For details on data and methods, see box 2 and appendix C.)

Box 2. Data, sample, and methods

Data. To identify all the schools in California that have adopted the Expository Reading and Writing Curriculum (ERWC), this study used data collected by the Center for the Advancement of Reading and Writing (CAR/W) at the California State University Chancellor's Office (2017). For data on all courses taught at each high school in California and the demographic characteristics of the students in each course, the study used publicly available data from the California Department of Education (CDE) (California Department of Education, 2017a, 2017b).

The study used data on ERWC course adoption from the CAR/W to explore the characteristics of schools that have adopted the course and those that have not (see appendix A for a description of the course adoption process). To identify ERWC schools, the study used course adoption data rather than enrollment data because the CAR/W has an accurate count of schools that have adopted the course, but ERWC enrollment data from the CDE may not be as accurate. The study team learned anecdotally that some schools may use an outdated code for the ERWC when reporting course enrollment to the CDE (see the “Data sources” section of appendix C for details). If true, this misreporting would lead to incorrect results when comparing schools based on whether they reported enrolling students in the ERWC.

For analyses of student characteristics and teacher workloads, the study did use course enrollment data. Although schools that offer the ERWC may not report ERWC enrollment because they use an outdated course code, for any school that does use the ERWC code

(continued)

Box 2. Data, sample, and methods (continued)

and reports having students in the course, the study team assumed that the reported ERWC classes are correctly identified.

Sample. The study used data from the 2016/17 school year, the most recent data available when the study was conducted. Therefore, the findings refer to 2016/17, unless otherwise noted. The study sample included the 1,568 comprehensive high schools, charter schools, and other K–12 schools in California that served at least one student in grade 12 in the 2016/17 school year.

The study did not include alternative schools in the study sample because they differ from mainstream schools in that they provide alternative means of attaining the objectives of a regular education. As of 2016/17, approximately 700 alternative schools, including continuation schools, served at least one grade 12 student. Approximately 120 of these alternative schools had adopted the ERWC.

For analyses of student characteristics in schools with ERWC enrollment (research question 2b) and of ERWC teacher workload (research questions 3a and 3b), the sample was limited to the 301 schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course. This restriction was intended to prevent ERWC students and teachers from being compared with widely dissimilar students and teachers in different locales, geographic regions, and possibly school settings. In that way, the study was able to compare the race/ethnicity of students in the ERWC with that of students in the other English courses and to compare the workload of ERWC teachers with that of teachers of the other English courses.

Methods. The study used descriptive statistics to examine the research questions. The analysis yielded results that compare ERWC adoption rates by school locale and schoolwide enrollment, compare the characteristics of schools that have adopted the ERWC and those that have not, compare the demographic characteristics of students in the course and those in other grade 12 mainstream college preparatory English courses, and compare the workloads of ERWC teachers and teachers of the other English courses. Inferential tests of statistical significance were not conducted because the analyses for ERWC adoption rates included the full population of California high schools (as defined in box 1) and the analyses of student characteristics and teacher workloads included the full population of schools that reported having students in the ERWC. (See appendix C for details on data sources and analytic methods.)

The study addressed six research questions on ERWC adoption, enrollment, and teacher workload in 2016/17.

On ERWC adoption:

- 1a. What percentage of California high schools had adopted (that is, been approved to offer) the ERWC as of 2016/17?
- 1b. How do adoption rates vary by school locale and schoolwide enrollment? What are the demographic composition and achievement level of students in schools that have adopted the ERWC and those that have not?

On ERWC enrollment:

- 2a. Among schools that reported having students in the ERWC, what percentage did not report student enrollment in any other grade 12 mainstream college preparatory English course?¹⁰
- 2b. Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, what are the demographic characteristics of these two groups of students?

On ERWC teacher workload:

- 3a. Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, how did the number of classes and the number of students taught differ between ERWC teachers and teachers of the other English courses?
- 3b. Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, how did class size differ between ERWC classes and the most common other English classes?

What the study found

The study used descriptive statistics to examine the research questions on ERWC adoption, enrollment, and teacher workloads. The key findings are reported here. Appendix D provides detailed results, and appendix E has an additional analysis of class size distribution.

Adoption of the Expository Reading and Writing Curriculum

Slightly more than half of California high schools had adopted the Expository Reading and Writing Curriculum

As of 2016/17, 1,568 schools served at least one student in grade 12 in California.¹¹ Among these schools, 53 percent (832 schools) had adopted the ERWC (figure 1).

The Expository Reading and Writing Curriculum adoption rate was lower in rural schools than in city, suburban, and town schools

Less than 40 percent of rural schools had adopted the ERWC compared with at least 49 percent of city, suburban, and town schools. Suburban schools had the highest adoption rate, at 62 percent (see figure 1 and table D1 in appendix D).

The Expository Reading and Writing Curriculum adoption rate increased as schoolwide enrollment increased

An examination of adoption rates by schoolwide enrollment found that the adoption rate increased with schoolwide enrollment (figure 2; see also table D2 in appendix D). Specifically, the adoption rate was 11 percent for schools with 1–199 students, 33 percent for

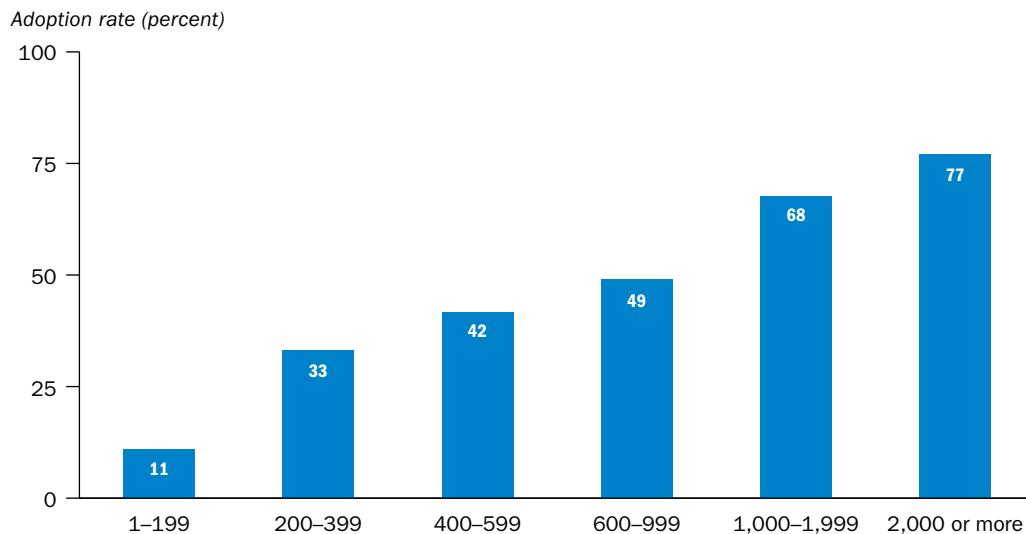
Figure 1. Less than 40 percent of California high schools in rural areas had adopted the Expository Reading and Writing Curriculum as of 2016/17 compared with 62 percent in suburban areas



Note: School locale categories are based on locale codes for public schools in National Center for Education Statistics (2015). As of 2016/17, the numbers of high schools in each locale were city, 618; suburb, 577; town, 138; and rural, 208. In addition, 27 schools did not provide information about their locale and therefore were excluded from the analysis.

Source: Authors' analysis based on data from California Department of Education (2017a) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

Figure 2. Less than 40 percent of California high schools with fewer than 400 students had adopted the Expository Reading and Writing Curriculum as of 2016/17



Source: Authors' analysis based on data from California Department of Education (2017a) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

schools with 200–399 students, 42 percent for schools with 400–599 students, and so on up to 77 percent for schools with 2,000 or more students.

Compared with schools that had not adopted the Expository Reading and Writing Curriculum, schools that had adopted the course tended to be higher achieving, to serve higher percentages of Hispanic students, and to serve higher percentages of low-income students

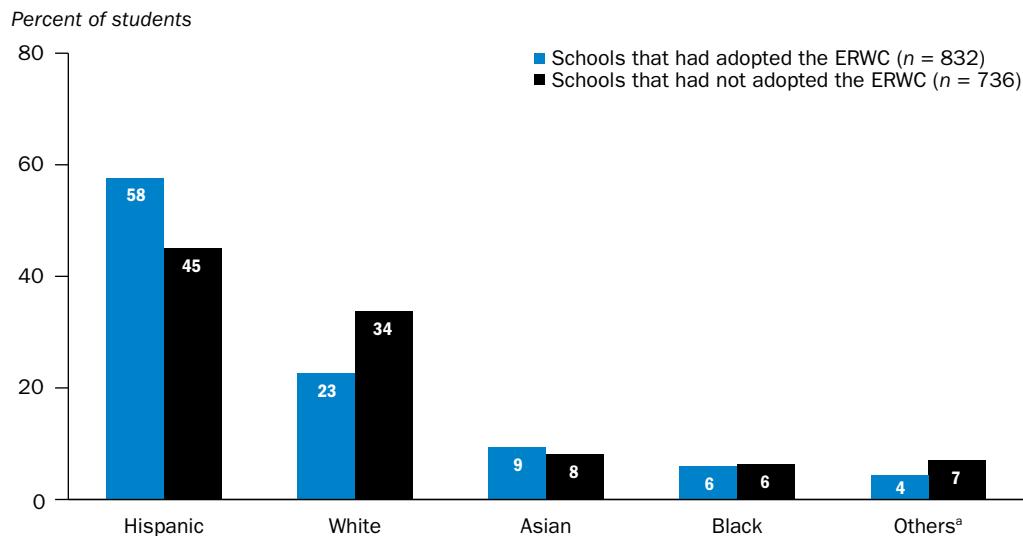
Compared with schools that had not adopted the ERWC, schools that had adopted it had a higher percentage of Hispanic students (58 percent versus 45 percent; figure 3), a higher percentage of students meeting or exceeding standards on the grade 11 Smarter Balanced English language arts assessment (60 percent versus 51 percent; figure 4), and a higher percentage of students eligible for the national school lunch program (60 percent versus 54 percent; see figure 4).

Enrollment in the Expository Reading and Writing Curriculum

Among schools that reported having students in the Expository Reading and Writing Curriculum, about one quarter did not report student enrollment in any other grade 12 mainstream college preparatory English course

Among the 397 California high schools that reported to the CDE that they had students in the ERWC,¹² 24 percent (96 schools) did not report student enrollment in any other grade 12 mainstream college preparatory English course. Administrators from some high schools that reported student enrollment only in the ERWC and AP English noted that

Figure 3. California high schools that had adopted the Expository Reading and Writing Curriculum had, on average, a higher percentage of Hispanic students, 2016/17

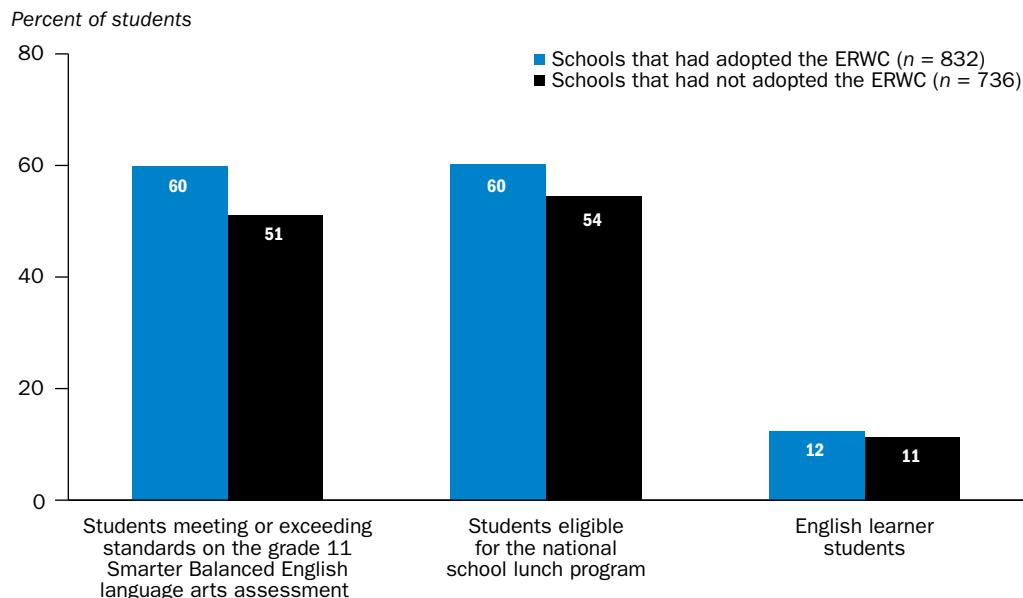


ERWC is the Expository Reading and Writing Curriculum.

a. Includes Pacific Islander, American Indian, and more than one race/ethnicity.

Source: Authors' analysis based on data from California Department of Education (2017a) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

Figure 4. California high schools that had adopted the Expository Reading and Writing Curriculum had, on average, a higher percentage of students meeting or exceeding standards on the grade 11 English language arts assessment and a higher percentage of low-income students, 2016/17



ERWC is the Expository Reading and Writing Curriculum.

Source: Authors' analysis based on data from California Department of Education (2017a) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

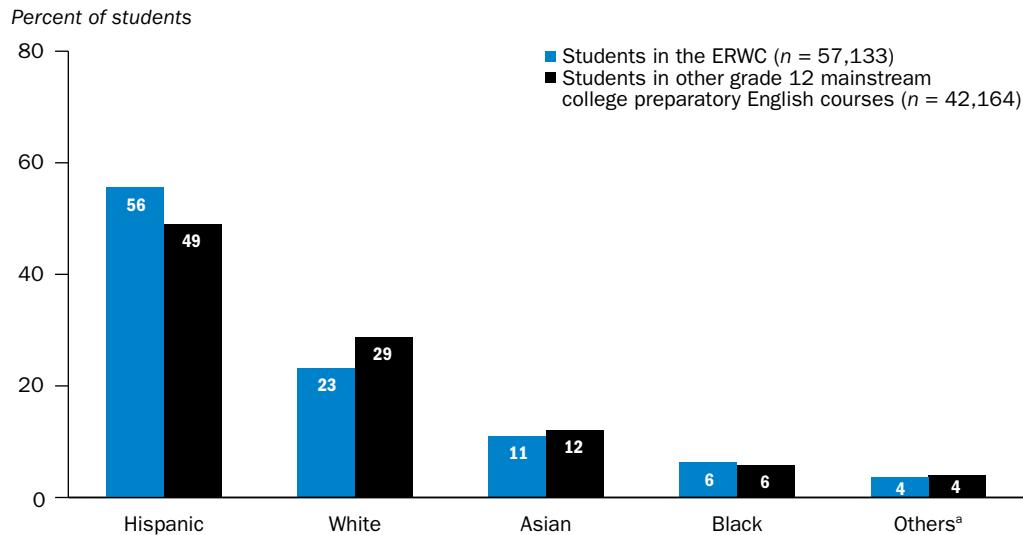
they prefer that all students who do not take AP English take the ERWC, given the positive impact of the ERWC found in the previous evaluation study (Fong et al., 2015).¹³ However, the current study did not further examine possible reasons for this finding.

Among schools that reported having students in the Expository Reading and Writing Curriculum and students in at least one other grade 12 mainstream college preparatory English course, the racial/ethnic distribution of students was similar, except for Hispanic students and White students

In the 301 schools that reported having students in the ERWC and students in at least one other English course, Hispanic students were over-represented in the ERWC and White students were underrepresented compared with their distribution in other grade 12 mainstream college preparatory English courses (figure 5).

English learner students made up a smaller proportion of students in the ERWC (6 percent) than of students in other grade 12 mainstream college preparatory English courses (9 percent). Although the difference was small on a percentage point basis (3 percentage points), the proportion of English learner students in the other English courses was 50 percent higher than the proportion of English learner students in the ERWC.

Figure 5. Among California high schools that reported having students in the Expository Reading and Writing Curriculum and students in at least one other grade 12 mainstream college preparatory English course, the racial/ethnic distribution of students was similar except for the percentages of Hispanic students and White students, 2016/17



ERWC is the Expository Reading and Writing Curriculum.

a. Includes Pacific Islander, American Indian, and more than one race/ethnicity.

Source: Authors' analysis based on data from California Department of Education (2017a).

Teacher workload for the Expository Reading and Writing Curriculum

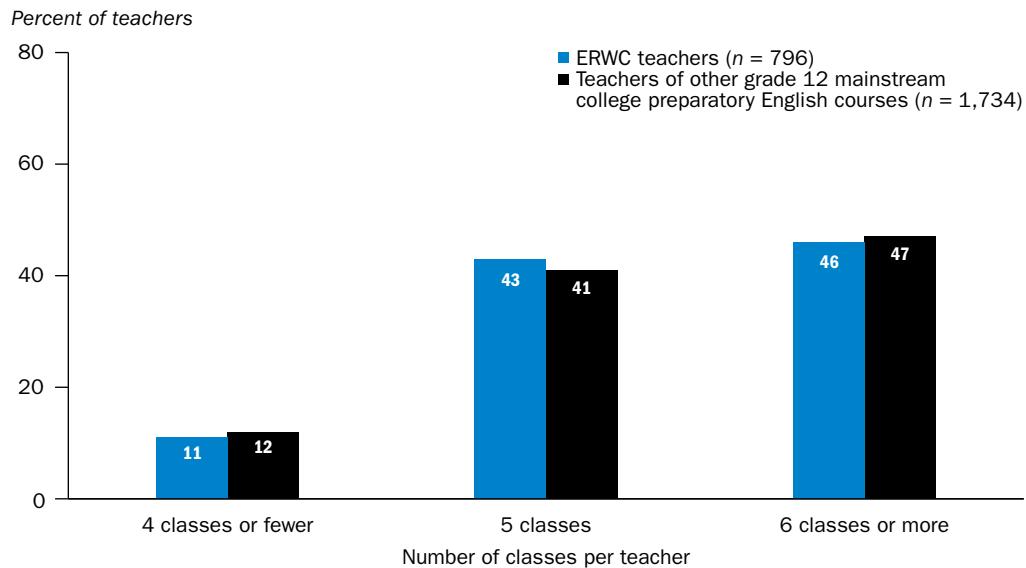
Teachers of the Expository Reading and Writing Curriculum and teachers of other grade 12 mainstream college preparatory English courses taught similar numbers of classes

In the 301 California high schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, nearly 90 percent of the 796 ERWC teachers and nearly 90 percent of the 1,734 teachers of the other English courses taught five or more classes. Specifically, 11 percent of the ERWC teachers taught four or fewer classes, 43 percent taught five classes, and 46 percent taught six or more classes. The distribution was similar for the other teacher group: 12 percent taught four or fewer classes, 41 percent taught five classes, and 47 percent taught six or more classes (figure 6).

Teachers of the Expository Reading and Writing Curriculum had more students, on average, than teachers of other grade 12 mainstream college preparatory English courses

Despite teaching similar numbers of classes, ERWC teachers had more students, on average, than did teachers of other grade 12 mainstream college preparatory English courses. In the 301 schools, ERWC teachers had an average of 157.0 students, which includes both their ERWC students and students in the other English classes. The average for the other teachers was 149.6 students.

Figure 6. Expository Reading and Writing Curriculum teachers and teachers of other grade 12 mainstream college preparatory English courses in California high schools taught similar numbers of classes, 2016/17



ERWC is the Expository Reading and Writing Curriculum.

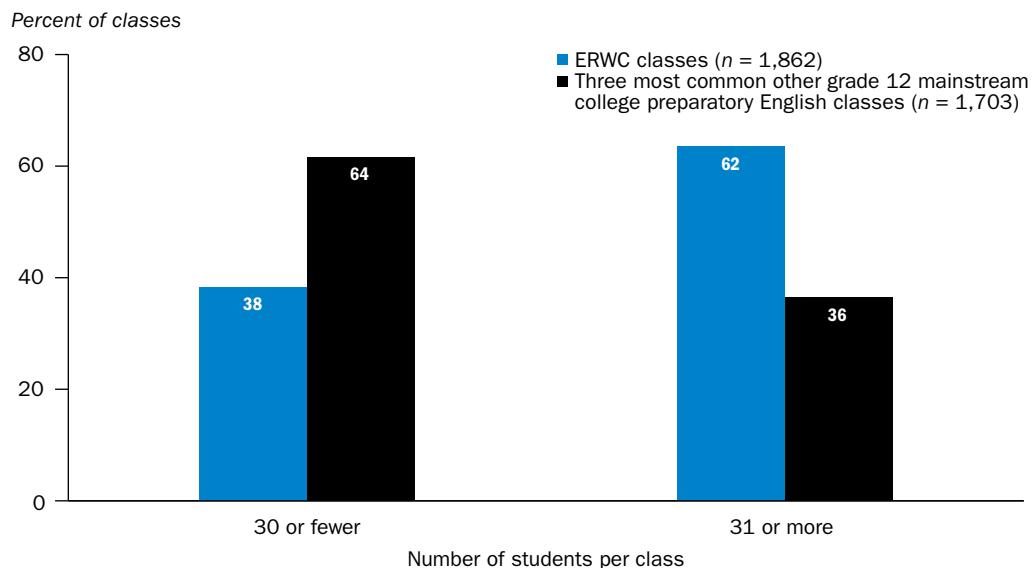
Source: Authors' analysis based on data from California Department of Education (2017b).

Expository Reading and Writing Curriculum classes averaged more students per class than did the other grade 12 mainstream college preparatory English courses

Class sizes were larger for ERWC classes than for the other grade 12 mainstream college preparatory English courses. Among the 301 schools, the mean ERWC class size was 30.9, and the median was 32, whereas the means for the three other most common English courses¹⁴ were 23.0 (English 12), 25.2 (Other English), and 14.8 (Composition), and their medians were 29 (English 12), 30 (Other English), and 7 (Composition).

Among the 1,862 ERWC classes in the 301 schools, 62 percent had 31 students or more. Specifically, 58 percent had 31–40 students, and 4 percent had 41 students or more (see table D3 in appendix D). By comparison, among the 1,703 classes of the three most common other grade 12 mainstream college preparatory English courses, only 36 percent had 31 students or more (figure 7). (Results of additional analysis using kernel density estimation to explore the different class size distributions among the ERWC and the three other most common English courses are in appendix E.)

Figure 7. Higher percentages of Expository Reading and Writing Curriculum classes in California high schools had 31 students or more per class than did the three most common other grade 12 mainstream college preparatory English courses, 2016/17



ERWC is the Expository Reading and Writing Curriculum.

Source: Authors' analysis based on data from California Department of Education (2017b).

Implications and next steps

The ERWC has been shown to increase students' readiness for college-level reading and writing, leading proponents to ask how it might be taken to greater scale and how it could be further improved. This study's findings can inform California's scaling and improvement efforts and may also have relevance for efforts beyond California to develop and implement similar transition courses.

Implications for California organizations involved with the Expository Reading and Writing Curriculum

The ERWC Steering Committee may wish to consider how its outreach efforts to small schools and rural schools could be improved to overcome the low adoption rates in those schools. The committee could also consider dedicating more resources to outreach efforts that target small and rural schools and refining recruitment materials to more clearly demonstrate the course's value to the students that small and rural schools serve. These activities, and others designed to reduce barriers to the ERWC's adoption, could be informed by interviews with educators and instructional leaders working in small or rural school settings.

The ERWC Steering Committee may also wish to redouble efforts that encourage schools that have adopted the ERWC to ensure their curricula include other grade 12 mainstream college preparatory English courses. Despite the committee's recommendation that schools offer multiple grade 12 mainstream college preparatory English courses to prepare students for college-level reading and writing, this study found that almost a quarter of the California schools that enroll students in the ERWC had no other grade 12 mainstream English

course options. As a result, these students have very little flexibility if the ERWC does not meet their interests or learning needs.

Lower enrollment rates in the ERWC among English learner students suggest that the ERWC Steering Committee may wish to explore barriers unique to these students' enrollment. While the enrollment gap identified by this study was modest in absolute terms (3 percentage points), it can have notable consequences on classroom composition: the proportion of English learner students in other grade 12 mainstream college preparatory English courses was 50 percent higher than the proportion of English learner students in the ERWC.

This study also highlighted higher ERWC enrollment rates among Hispanic students, which may serve as a reminder to the ERWC Steering Committee to consider how ongoing analyses of the course's cultural responsiveness could benefit students of all kinds. The results of that work could include updated topical content representing more diverse sets of issues and experiences, pedagogies better aligned to the breadth of students that the ERWC serves, professional learning for instructional staff and leaders, and the use of data to explore and support the success of student subgroups.

Finally, the ERWC Steering Committee might wish to consider how to support educators and instructional leaders in managing a curriculum that yields a high volume of student writing to grade in the context of larger than average class sizes. As noted above, this study found that 62 percent of ERWC classes had 31 students or more compared with only 36 percent of other courses. Integrating time-saving strategies for grading large amounts of student homework into ERWC teachers' existing professional development could be beneficial. Schools adopting the ERWC might also consider recruiting new, and preparing existing, English teachers to teach the ERWC.

Broader relevance

This study provides examples of the types of metrics that course developers and entities supporting course adoption could use to inform the continuous improvement of other courses. Districts and schools across the country are often faced with resource constraints that impact class sizes and teacher workloads. Given such constraints, analyzing class size and teacher workloads of a given course is an important step toward maximizing resources that can ultimately help improve student achievement. As an example, the CDE recently funded the development of a transition course in math. Once this math course and its delivery structure are more fully developed, statewide data collection on factors associated with the course, such as take-up rates, student composition, and teacher workload, could help developers improve the dissemination and delivery of the course.

Limitations of the study

The information about ERWC enrollment is based on the CDE dataset, which may not fully represent the number of schools that enrolled students in the ERWC if some schools did not accurately report their ERWC enrollment in 2016/17. Based on how districts may misreport course enrollment to the CDE,¹⁵ REL West believes that the misreporting of ERWC enrollment is likely to be random and unrelated to the second research question on the characteristics of students in the ERWC and students in other English classes or to

the third research question on ERWC teacher workloads. However, this conclusion has not been confirmed through analysis of the full population of California high schools. Further investigation is needed to ascertain whether the sample of schools that reported student enrollment in the ERWC is generalizable to the schools across the state that actually had students in the ERWC.

Appendix A. Organization infrastructure and course adoption process for the Expository Reading and Writing Curriculum

An extensive infrastructure of organizations supports implementation of the Expository Reading and Writing Curriculum (ERWC) and is involved in the process that schools follow to officially adopt the ERWC at grade 12.

The Center for the Advancement of Reading and Writing

The Center for the Advancement of Reading and Writing (CAR/W) is based in the California State University (CSU) Chancellor's Office. It coordinates the ERWC Steering Committee, which has approximately 15 members and consists of CSU professors and literacy experts from schools, districts, and county offices of education. The ERWC Steering Committee oversees the direction of the curriculum, including the development of course materials, the standards addressed by the curriculum, and the professional learning for the teachers teaching the course.

California County Superintendents Educational Services

The CAR/W collaborates with the California County Superintendents Educational Services Association to deliver ERWC professional learning throughout the state. County offices in California are organized into 11 regions, each including several contiguous counties. Each region has a regional lead who coordinates ERWC professional learning in the region, working with county staff to set up the professional learning and recruit teachers to attend. CSU campus staff members, notably in Los Angeles County, also coordinate professional learning.

District offices

Literacy coaches at the district offices often support implementation of the ERWC. These literacy coaches are sometimes ERWC coaches who support teachers in their district's schools to implement pedagogical practices that align with the ERWC.

Early Assessment Program

The Early Assessment Program (EAP) is a separate arm of outreach for the ERWC and is a collaborative effort among the CSU, the California Department of Education, and the California State Board of Education. The CSU Graduation Initiative 2025 now incorporates the Early Assessment Program, specifically in the area of academic preparation of incoming students. Each of the 23 CSU campuses across the state houses an EAP coordinator, who provides outreach and information to schools to support implementation of the EAP, of which the ERWC is an important component. Each EAP coordinator supports the work of the county region in which his or her CSU campus is located and helps coordinate ERWC professional learning to work with districts and schools to provide outreach and dissemination for the ERWC.

Adoption of the Expository Reading and Writing Curriculum

Before offering the ERWC as a "b" English course, a California school submits a two-page application to the CAR/W at the CSU Chancellor's Office to adopt the course. Approval is

dependent on the school's teachers completing 24 hours of professional learning to become certified to teach the course. The CAR/W reviews the school's application, and if it is approved, sends an approval letter detailing the requirements that come with ERWC adoption. The requirements include ensuring that the school's "a–g" course list¹⁶ is updated to reflect the ERWC, ensuring that enrollment in the course is reported in the California Longitudinal Pupil Achievement Data System using Course Code 2118, providing program data to the CSU through an occasional online survey, and overseeing implementation (California State University, 2019). Once the course is adopted, the school can offer it and enroll students, and the course can be officially recognized on students' transcripts.

Appendix B. The Expository Reading and Writing Curriculum and California State University's new policy eliminating remedial courses

Beginning in fall 2018, the California State University (CSU) system eliminated remedial courses and announced that all freshmen would be placed in college-level courses in writing communication and math/quantitative reasoning. However, students who are underprepared still receive extra support. According to Executive Order 1110 issued by the CSU Chancellor, a summer program called the Early Start Program serves incoming freshmen who have not demonstrated proficiency in English or math (White, 2017).

The CSU also issued a memorandum on placement guidelines based on traditional test measures and high school achievement (Forbes, 2017). The memo indicates that students placed in Category II (students who have met examination standards or standards informed by multiple measures) or better are not required to participate in supported coursework or the Early Start Program.

One way for high school students to qualify for Category II and therefore avoid the Early Start Program or other supported coursework is by having a weighted high school grade point average¹⁷ of 3.0–3.3 and completing the Expository Reading and Writing Curriculum (ERWC) with at least a “C–” grade. Another way to qualify is to complete a grade 12-approved English course (of which the ERWC is one) with at least a “C–” grade and achieve at least one of the following:

- A score of 510–540 on the evidence-based reading and writing section on the new SAT.
- A score of 460–490 on the critical reading section of the old SAT.
- A score of 19–21 on the English portion of the ACT.
- A result of “Standard Met” on the Early Assessment Program Smarter Balanced Assessment.

In the context of the CSU’s new policy of assessing academic preparation using multiple measures and eliminating remedial courses, the ERWC is one important way for high school graduates to demonstrate college readiness when they enter the CSU system.

Appendix C. Data and methodology

This appendix describes the study's data and methodology.

Data sources

The data for this study are from two sources: data collected by the Center for the Advancement of Reading and Writing (CAR/W) at the California State University Chancellor's Office (Center for the Advancement of Reading and Writing, 2017) and publicly available data from the California Department of Education (CDE; California Department of Education, 2017a, 2017b).

Before offering the Expository Reading and Writing Curriculum (ERWC), a California school submits an application to the CAR/W at the CSU Chancellor's Office to adopt the course. The CAR/W maintains a database of all the schools in California that have adopted the ERWC.

School districts maintain data on each of the courses offered within their schools (including the local course name, local course number, and course description), along with data on the students in each of the courses. This information is stored in the district's student information system (such as Aeries). Every time a new course is approved by the school board and offered at a school, a new course name and local course number are created and stored in the student information system.

All course offerings at California public schools are required to be reported to the CDE for federal reporting purposes. In order for the CDE to maintain a standardized list of courses offered throughout the state, the CDE has created four-digit statewide California Longitudinal Pupil Achievement Data System (CALPADS) codes that schools use to identify the courses they offer. In order for districts to match the local course offered in their schools with the four-digit CALPADS code, someone from the district maps the local course names and course descriptions from schools to the courses in the CDE's list of four-digit CALPADS codes. If that person is unsure which CALPADS code best matches the course being taught at the school, he or she can consult with a high school counselor or a teacher of the course. Once the four-digit CALPADS code is agreed upon for the local course, that code is entered into the district's student information system so that the local course becomes attached to the specific four-digit CALPADS code. In other words, the student information system will contain information on the local course name, local course number, and four-digit CALPADS code. This allows the district to report to the CDE the local course name, the local course number, and the CALPADS course number; the CDE uses only the CALPADS course number reported by all districts in the state to publicly report the courses taught at each high school.

The CDE assigned the ERWC a statewide code of 2118 during the 2011/12 school year. Before that, districts and schools used whichever statewide code they thought best matched the ERWC—usually the statewide code for English 12. Not all high schools that enrolled students in an ERWC class changed the code in their student information system to 2118 when the new ERWC code was established. Based on communications with the ERWC Steering Committee as well as some schools and districts that participated in a previous evaluation study of the ERWC (Fong et al., 2015), the Regional Educational Laboratory

West concluded that misreporting of ERWC enrollment is not systematic. Each year, additional districts correct the code for the ERWC to 2118. Nonetheless, some schools might still be reporting an incorrect statewide code for the ERWC. Additional communication and outreach are necessary to ensure that all districts are using the correct ERWC code.

The data that the CAR/W maintains on schools that have adopted the ERWC as of the 2016/17 school year were merged with school-level data from the CDE to determine the following:

- Percentage of California high schools that have adopted the ERWC (research question 1a).
- Characteristics of schools that have adopted the ERWC and those that have not (research question 1b).

The CDE dataset includes information on all courses taught at each high school in California, as well as the demographic characteristics of the students in each course. For example, for a given high school, the dataset names all the English courses that grade 12 students enrolled in; indicates the teacher identification number for each course; and indicates the numbers of students, by race/ethnicity, in each course. This study analyzed the most recent course data available at the time, which were for the 2016/17 school year (California Department of Education, 2017b). The CDE also has publicly available data on school-level student demographics and school-level Smarter Balanced test results (California Department of Education, 2017a).

The CDE data were used to provide descriptive information about the following:

- Schools that did not report student enrollment in any other grade 12 mainstream college preparatory English course besides the ERWC (research question 2a).
- Characteristics of students in the ERWC and students in the other courses (research question 2b).
- Distributions of the number of classes per teacher, total student enrollment per teacher, and sizes of ERWC classes and the most common other English classes (research questions 3a and 3b).

Data analysis

The analyses were restricted to comprehensive high schools, charter schools, and other K–12 schools in California that served at least one student in grade 12 in the 2016/17 school year. Because the analyses included the full population of such high schools in the state, tests of statistical significance were not conducted.

Research question 1: Adoption of the Expository Reading and Writing Curriculum

- 1a. What percentage of California high schools had adopted (that is, been approved to offer) the ERWC as of 2016/17?
- 1b. How do adoption rates vary by school locale and schoolwide enrollment? What are the demographic composition and achievement level of students in schools that have adopted the ERWC and those that have not?

For research question 1a, the number of public high schools that serve at least one student in grade 12 in California that had adopted the ERWC as of 2016/17 was divided by the

number of public high schools that served at least one student in grade 12 in the same year.

For research question 1b, all schools were identified as having either adopted the ERWC or not having adopted it as of 2016/17. The study also examined how adoption rates varied by school locale (that is, city, suburb, town, and rural) and schoolwide enrollment (grouped as 1–199 students, 200–299, and so on). For the schools' student demographic composition and student achievement level, schools that have adopted the ERWC and those that have not were compared along the following school-level dimensions: percentage of students meeting or exceeding standards on the grade 11 Smarter Balanced English assessment, percentage of low-income students, percentage of English learner students, percentage of Asian students, percentage of Black students, percentage of Hispanic students, percentage of White students, and percentage of other students.

Alternative schools were not included in the analyses because they differ from mainstream schools in that they provide alternative means of attaining the objectives of a regular education and meeting students' needs. As of the 2016/17 school year, approximately 700 alternative schools, including continuation schools and other alternative schools and programs, served at least one grade 12 student. Approximately 120 of these alternative schools had adopted the ERWC.

Research question 2: Enrollment in the Expository Reading and Writing Curriculum

- 2a. Among schools that reported having students in the ERWC, what percentage did not report student enrollment in any other grade 12 mainstream college preparatory English course?¹⁸
- 2b. Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, what are the demographic characteristics of these two groups of students?

For research question 2a, the study first filtered out all the Advanced Placement (AP) English, International Baccalaureate (IB) English, and English language development (ELD) courses taken by grade 12 students. Then, the number of schools that had only ERWC courses remaining for grade 12 English were counted. The number of schools that reported student enrollment in the ERWC but that did not have students in any other mainstream college preparatory English course was divided by the number of high schools that reported having students in the ERWC.

The study defined "grade 12 mainstream college preparatory English course" as any non-AP, non-IB, and non-ELD English course that enrolled at least 50 percent grade 12 students. Based on this definition, the full list of mainstream college preparatory English courses in California and their statewide code are listed in table C1.

Research question 2b considered only the schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course. This data restriction filtered out students who never had the option of enrolling in the ERWC (because their school did not offer it) and students whose only mainstream option was to enroll in the ERWC (because it was the only grade 12 mainstream English

Table C1. Grade 12 mainstream college preparatory English courses in California high schools and their statewide code, 2016/17

Statewide code	Course title
2101	Comprehensive English
2105	American literature
2106	English literature
2107	Ethnic literature
2108	World literature
2109	Other literature
2111	Journalism
2112	Speech
2113	Composition
2114	Advanced composition
2115	Forensics
2116	Language structure/language arts
2117	Science fiction
2118	Expository Reading and Writing Curriculum
2133	English 12
2161	Middle Years Program Language A
2190	Dual enrollment college course, English language arts
2198	Other English course

Source: California Department of Education (2013).

course offered). In that way, the comparison was between students who chose to enroll in the ERWC and students who chose not to enroll in the ERWC. The ERWC students were compared with students who took the other grade 12 mainstream college preparatory English courses along the following dimensions: percentage of Asian students, percentage of Black students, percentage of Hispanic students, percentage of White students, percentage of other students, and percentage of English learner students.

Research question 3: Teacher workload for the Expository Reading and Writing Curriculum

- 3a. Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, how did the number of classes and the number of students taught differ between ERWC teachers and teachers of the other English courses?

- 3b. Among schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course, how did class size differ between ERWC courses and the most common other English courses?

For questions 3a and 3b, the analytic sample was restricted to the 301 schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course.

For research question 3a, the study calculated the number of classes and total number of students taught by every ERWC teacher and by every teacher who taught another grade 12

mainstream college preparatory English course. The number of classes and the number of students taught per teacher were compared. This analysis was conducted at the teacher level.

For research question 3b, the study calculated class sizes of the ERWC and of the most common other English courses taught in grade 12. Total student enrollment in each course was used to identify the three most common English courses other than the ERWC in the 301 schools. Mean, median, and distributions of class sizes were compared, as were the kernel density estimations. This analysis was conducted at the class level.

Schools and teachers excluded from the analysis

Nine schools were excluded from the analysis because they reported having more than 10 classes of the ERWC or other mainstream English courses in the school with just one student per class.

For research question 3, one additional school was excluded because it reported that 42 teachers taught the same ERWC class with a class size of 336 students.

After teachers from these 10 schools were excluded, 11 duplicate teacher records (that is, teachers with the same staff ID, class ID, and school code who appeared more than once in the database) were further deleted. However, if the same staff ID was used at multiple schools within the same school district, the staff ID was assumed to refer to the same teacher teaching at multiple schools, and therefore was included in the analysis. There were five teachers who taught the ERWC at different schools within the same district.

Appendix D. Tables with detailed results

This appendix provides detailed findings of this study on adoption, enrollment, and teacher workload for the Expository Reading and Writing Curriculum.

Table D1. Expository Reading and Writing Curriculum adoption rates, by school locale, 2016/17

Locale	Adopting schools		Nonadopting schools	
	Number	Percent	Number	Percent
City	330	53.4	288	46.6
Suburb	357	62.0	220	38.0
Town	67	48.6	71	51.4
Rural	78	37.5	130	62.5

Note: School locale categories are based on locale codes for public schools in National Center for Education Statistics (2015). The 27 schools that did not provide information about their locale were excluded from this analysis.

Source: Authors' analysis based on data from California Department of Education (2017a) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

Table D2. Expository Reading and Writing Curriculum adoption rates, by schoolwide enrollment, 2016/17

Number of students	Adopting schools		Nonadopting schools	
	Number	Percent	Number	Percent
1–199	24	11.0	195	89.0
200–399	59	33.2	119	66.9
400–599	74	41.6	104	58.4
600–999	86	49.1	89	50.9
1,000–1,999	298	67.7	142	32.3
2,000 or more	291	77.0	87	23.0

Source: Authors' analysis based on data from California Department of Education (2017a) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

Table D3. Distribution of Expository Reading and Writing Curriculum class sizes, 2016/17

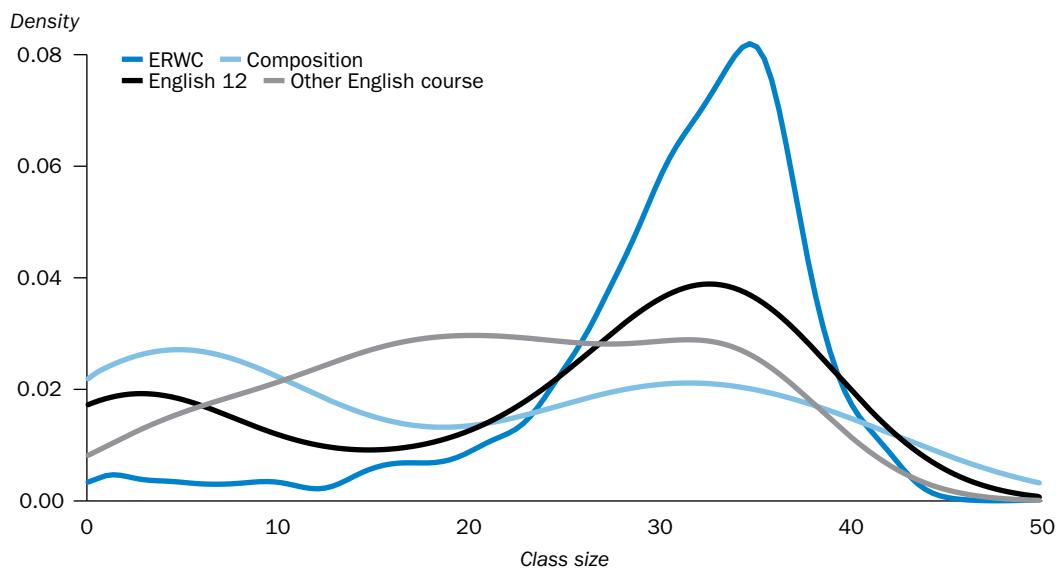
Number of students per class	Number of classes (n = 1,862)	Percentage of classes
20 or fewer	169	9.1
10 or fewer	76	4.1
11–20	93	5.0
21–30	545	29.3
21	25	1.3
22	22	1.2
23	18	1.0
24	34	1.8
25	52	2.8
26	42	2.3
27	69	3.7
28	84	4.5
29	77	4.1
30	122	6.6
31–40	1,081	58.1
31	122	6.6
32	118	6.3
33	145	7.8
34	142	7.6
35	172	9.2
36	164	8.8
37	90	4.8
38	65	3.5
39	43	2.3
40	20	1.1
41 or more	67	3.5
41	28	1.5
42	19	1.0
43 or more	20	1.0

Source: Authors' analysis based on data from the California Department of Education and the Center for the Advancement of Reading and Writing at the California State University Chancellor's Office.

Appendix E. Additional analysis of class size distributions of the Expository Reading and Writing Curriculum

An additional analysis used kernel density estimation to further explore the class size distributions of the Expository Reading and Writing Curriculum (ERWC) and the three most common other grade 12 mainstream college preparatory English courses. When the data for class size are plotted for these courses using kernel density estimation, the kernel density of the ERWC has the highest peak for the largest class size (at approximately 34 students), which means that it was the most likely to have the largest class size (figure E1).

Figure E1. The Expository Reading and Writing Curriculum had larger class sizes than the three most common other grade 12 mainstream college preparatory English courses, 2016/17



ERWC is the Expository Reading and Writing Curriculum.

Note: Kernel density estimation is a nonparametric method of estimating the probability density function of a random variable. It is nonparametric because it does not assume any underlying distribution for the variable. Each kernel has a bandwidth, which determines the width of the “bump” (the width of the neighborhood of values to which probability is assigned). A bigger bandwidth results in a shorter and wider bump that spreads out farther from the center and assigns more probability to the neighboring values.

Source: Authors' analysis based on data from California Department of Education (2017b) and Center for the Advancement of Reading and Writing at the California State University Chancellor's Office (2017).

Notes

1. The ERWC stood for the Expository Reading and Writing Course when it was developed in 2004. The ERWC Steering Committee, which oversees the overall direction of the course, changed *Course* to *Curriculum* in the name in 2017. Since then, educators and others have been using the words interchangeably.
2. Rhetoric-based means focusing not only on what the text says but also on its purpose, the intentions of the author, and the effects on the audience (California State University, 2013a).
3. A grade 11 course will be released during the 2019/20 school year.
4. All students in the study sample were asked to take the English Placement Test, and their scores were used as the outcome measure.
5. Such measures include high school grade point averages, grades in college preparatory courses, ACT scores, SAT scores, Advanced Placement scores, International Baccalaureate scores, SAT subject test scores, and Smarter Balanced Assessment/Early Assessment Program scores (White, 2017).
6. Despite the availability of adoption data from the application process, the CAR/W has not calculated detailed ERWC adoption statistics on comprehensive high schools. The CAR/W maintains data on all schools that have adopted the ERWC, but the data do not differentiate comprehensive high schools from alternative schools.
7. The anecdotal evidence includes personal communications with members of the ERWC Steering Committee and with staff at high schools that participated in the Fong et al. (2015) evaluation study.
8. Based on anecdotal feedback from staff at high schools in the Fong et al. (2015) evaluation study, the study team hypothesized that students in the ERWC and students in other grade 12 mainstream college preparatory English courses are exclusive groups. Therefore, the current study's analysis assumed that these two groups are mutually exclusive. However, the study team does not have empirical data to confirm this hypothesis.
9. This report defines class size as the number of students in one class (also known as a section) of a course.
10. This study assumes that if a school reported zero student enrollment in a particular course in grade 12, the school did not offer that course to students.
11. This study defines a high school as a school that served at least one student in grade 12; the study did not include schools serving any combination of students in grades 9, 10, and 11 but not grade 12 (see box 1). Therefore, the total number of California high schools reported here is smaller than the number of high schools in California (about 1,800).
12. The 397 schools that reported to the CDE that they have students in the ERWC constitute 48 percent of the 832 California schools that had adopted the ERWC. As noted earlier, the number of schools reporting students in the ERWC may be smaller than the number of schools that actually had students in the ERWC (see "Data sources" section of appendix C).
13. Communication with school staff at high schools that participated in the Fong et al. (2015) evaluation study.
14. The rank of the most common English courses was measured by total student enrollment in each course among the 301 schools that reported having students in the ERWC and students in at least one other grade 12 mainstream college preparatory English course. Based on CDE data, the ERWC was the most common grade 12

English course. “Other English” designates any English course not identified in the CDE assignment course list.

15. Districts use course codes to report student enrollment in various courses, and some districts might be reporting an incorrect code for the ERWC. The CDE assigned the ERWC a statewide code during the 2011/12 school year. Before that, districts and schools used whichever statewide code they thought best matched the ERWC—usually the code for English 12. Not all high schools that enrolled students in the ERWC changed the code in their student information system to 2118 when the new ERWC code was established.
16. The “a–g” course list is a sequence of high school courses that students must complete (with a grade of C or better) to be minimally eligible for admission to the University of California and the CSU.
17. The weighted grade point average is calculated using a student’s grades in all college preparatory “a–g” classes completed in grades 10 and 11 (California State University, 2018).
18. This study assumes that if a school reported zero student enrollment in a particular course in grade 12, the school did not offer that course to students.

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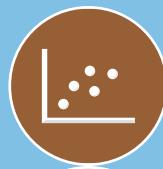
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